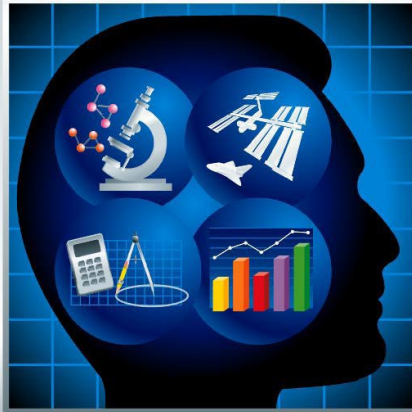


NASA CMS



Competency Management System

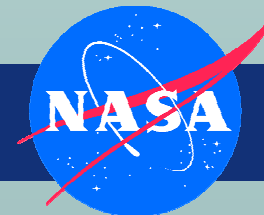
# NASA Competency Management System

## Competency Validation Process



CHRIS CARLSON  
CMS PROGRAM MANAGER  
NASA HEADQUARTERS  
(202) 358-0487

March 2, 2006



# Next Phase of CMS Implementation

## ❑ Collect competencies from employees & validate the data

## ❑ Why are we doing this?

- ▶ Knowing employee competencies provides greater workforce flexibility for the Agency
- ▶ Provides insight to professional communities/functional offices to better understand the expertise in the agency in their field of interest. And provides a process to influence the composition of that expertise.
- ▶ Stakeholders expressed desire for “validated” data
- ▶ Provides greater level of detail for succession planning
- ▶ Helps align employee development efforts with agency needs & priorities



# Collect Competencies From Employees

## ■ Action

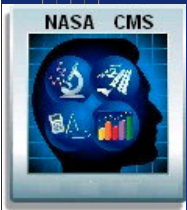
- ⊙ Employees are to identify, or validate, their personal set of competencies
- ⊙ Employees are encouraged to identify levels of expertise

## ■ Employee are “complete” with action when:

- ☑ Employees log into the system, review their portfolio, click “validate” button
- ☑ Employees log into the system, review their portfolio, and make adjustments
- ☑ If employees have previously logged into the system and have made adjustments (business rule to grandfather past efforts)

## ■ The System/Process will:

- Report on status towards completion of action. (see accountability section)
- For those employees that have not previously logged into the system, we will initialize the employee’s competencies to match the set of competencies in their current position.



# Managers Validate Employee Competencies

## ■ Action

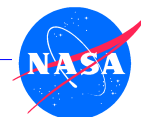
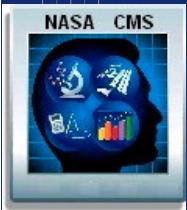
- ⊙ Managers are to review and validate employee/competencies at Tier 3 & 4
- ⊙ Managers are to identify a level of expertise for employee/competencies at Tier 0

## ■ Managers are “complete” with action when:

- ☑ All competencies at Tier level 3 or 4 for all of their employees have been validated
- ☑ They have identified a level of proficiency for all competencies at Tier level 0 for all of their employees,

## ■ The System/Process will:

- Report on status towards completion of action. (see accountability section)



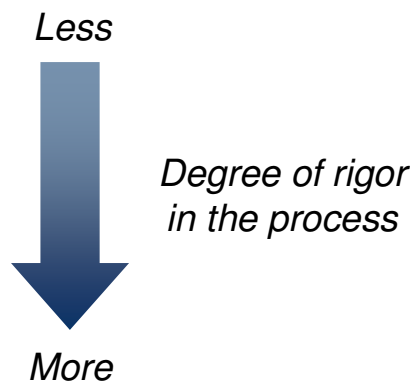
# Validation Process

## ❑ 2 types of Tier Ratings

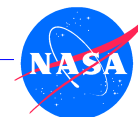
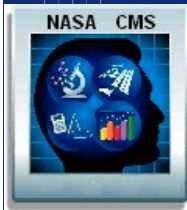
- ▶ Employee Self-Rating
- ▶ Validated Rating

## ❑ Validation Method

- ▶ System Adjusted
- ▶ Manager Assigned
- ▶ Employee Self Validated
- ▶ Manager Validated
- ▶ Peer Validated
- ▶ Functional Office
- ▶ BOARD Certified



## ❑ Validation Date



# Validation Process

## ■ Tier 1 & 2

For employees that have selected Tier 1 or 2:

- The system will automatically copy the employee self-rating to the validated rating
- The system will assign “employee self-validated” as the validation method

## ■ Tier 3 & 4

### ☑ The manager competency review

- The manager will review all competencies where the employee self identified themselves as Tier 3 or 4.
- The manager will discuss with the employee their applied knowledge of the competency to help ascertain their level of expertise
- The manager will compare the past and current activities of the employee against the standard tier indicators
- The manager can consult with peers and/or known subject matter experts within that professional community to help with the evaluation

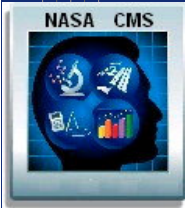
### ☑ The manager then takes the following actions:

- Manager **AGREES** with the employee self assessment
  - Supervisor selects the employee & competency being reviewed and clicks the “Validate” button
  - The system records the tier level, “manager validated” method, and the date
- Manager **DISAGREES** with the employee self assessment
  - Supervisor checks which indicator(s) were not meet
  - Supervisor enters rationale/area to improve (optional)
  - Supervisor enters a new tier level
  - Supervisor clicks “validate” button
  - The system records the tier level, “manager validated” method, and the date

## ■ Tier 0

For employees that did not selected a level of proficiency:

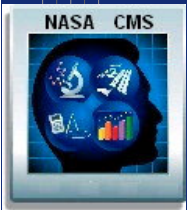
- The manager will review all competencies where the employee did not identify a level of proficiency
- The manager will discuss with the employee their applied knowledge of the competency to help ascertain their level of expertise
- The manager will compare the past and current activities of the employee against the standard tier indicators
  - Supervisor will enter the appropriate tier level
  - Supervisor clicks “validate” button
  - The system records the tier level, “manager assigned” method, and the date



# Business Rules

1. All validations/actions will be logged and displayed to the user.
2. The manager can review an employee's competencies and submit a new validated rating at anytime.
3. The last validated rating will supersede all previous "validated" ratings.
4. Employee Self-Ratings cannot be changed except by the employee themselves. The employee can change their self-rating at anytime.
5. If an employee changes their self-rating, the validated rating will not change.  
exception : unless the current validation method is "employee self-certified" and the employee self-rating is tier 1 or tier 2. (reference rule under the validation process)
6. The employee/manager should review the employee's competency portfolio at least once a year and make adjustments as needed.  
note: It is allowed, but not necessary for the manager to re-validate tier levels 3 & 4 each year
7. Tier 4 should be re-validated every 5 years.

In order to try and maintain a current list of subject matter experts, if an employee has a validated rating of tier 4 and the validation date is greater than 5 years, the system will automatically change the validated tier rating back to level 3 and post "System Adjusted : Tier 4 validation out of date" as the validation method.



# What is the data used for?

## ☐ Expert Locator

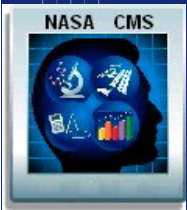
## ☐ Employee Development

- ▶ Managers/Employees can use tiers as a guide to see “gaps” and to help generate an IDP to address and close those knowledge gaps.
- ▶ LMS/HRD Community will use competencies to identify classes/dev activities
- ▶ Center use data to help determine their training needs & priorities

## ☐ Center & Organizational Succession Planning

## ☐ Competency Stakeholders

- ▶ Competency Stakeholders monitor & set target expertise levels







# Tier Indicator Overview

## Level of Proficiency

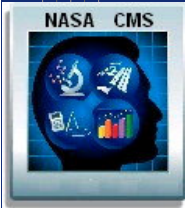
An attempt to measure an individual's depth of expertise in a competency by observing how well they apply and communicate their knowledge.

## 6 standard areas to observe

1. Use of Tools & Best Practices
2. Knowledge & Application of Policies, Standards, & Other Documents
3. Information Collection & Analysis
4. Problem Identification & resolution
5. Professional Development & Communication
6. Process/System Application, Assessment, & Integration

## Competency Specific Indicators

The competency owners / professional community may identify additional indicators that must be met under each tier.





# Tier Indicators

	TIER 1	TIER 2	TIER 3	TIER 4
Quick Reference	Basic knowledge	Working knowledge	Proficient	Subject matter expert
Definition	An individual has a basic knowledge of the subject matter and shows an awareness of how this competency relates to their job.	An individual has a working knowledge of the subject matter such that they are able to effectively apply that in their job.	Through the experience of applying their knowledge on the job, or other related activities, an individual has developed a thorough understanding of the subject matter AND is highly proficient in being able to apply that knowledge in their work environment.	Through years of experience, or advanced study, an individual has developed a comprehensive understanding of the subject matter and its interactions with other disciplines/competencies. The individual has advanced their set of skills to be able to apply their expertise to a multitude of projects and situations. The individual utilizes their in-depth knowledge to communicate and collaborate with peers within their normal work environment and outside to other professional business or technical communities.
Knowledge Measurements				
Use of Tools & Best Practices	Shows a basic knowledge of competency-related tools and best practices.	Exhibits ability to effectively use competency-related tools and best practices to perform their job.	Demonstrates skilled proficiency in their use of competency-related tools and best practices in their work environment.	Recognized by peers in their community and/or management, as having comprehensive knowledge of competency-related tools and best practices, how to apply them and how to improve them.
Knowledge and application of Policy & Standards & other documents	Shows a basic knowledge of competency-related policies, standards and other documentation..	Exhibits ability to effectively use their knowledge of competency-related policies, standards and other documentation to successfully perform their job.	Demonstrates skilled proficiency in their ability to incorporate their knowledge of competency-related policies, standards and other documentation to impact and modify systems and process in their work environment.	Recognized by peers in their community and/or management, for their expert ability to establish or modify competency-related policies, standards or technical specifications and/or development of other discipline related documentation utilized in their professional business or technical communities.
Information Collection & Analysis	Understand the basic information/data elements related to their competency.	Exhibits ability to effectively compile and analyze competency-related data for their job.	Demonstrates skilled proficiency in their ability to compile and summarize data, produce technical outputs and provide complex analysis for their work environment.	Recognized by peers in their community and/or management for their ability to provide a comprehensive data analysis to determine performance of organization or discipline-related systems, processes and events.
Problem Identification & Resolution	Shows an ability to review previously identified competency related problems and understand the applied solution.	Exhibits ability to effectively utilize their knowledge to routinely identify and solve work-related problems in their competency.	Demonstrates skilled proficiency in their ability to develop or change procedures/processes to resolve and/or prevent difficult technical/business issues.	Recognized by peers in their community and/or management for their comprehensive knowledge of the impact and interactions between multiple business/technical systems/processes that enables them to identify, assess and resolve complex technical or business problems.
Professional Development & Communication	Shows an ability to read and comprehend basic competency -related knowledge and information.	Exhibits ability to research, learn, and apply competency-related information to their job and effectively communicate that to peers in their professional community.	Demonstrates skilled proficiency in their ability to generate and present technical or functional documents and briefings to a variety of technical, functional, and/or management audiences.	Recognized by peers in their community and/or management for their comprehensive knowledge of the subject matter and their communication skills, they serve as an Agency, Center, and/or industry-wide resource for information and are often technical/business expert representatives on Center, Agency, industry, or academic working groups, boards, or panels.
Process/System Application, Assessment, & Integration	Shows a basic knowledge of competency-related processes/systems and the ability to follow prescribed procedures and implement plans.	Exhibits the ability to effectively utilize their knowledge to review and assess technical and/or business processes for impacts to the work flow.	Demonstrates skilled proficiency in their ability to apply their knowledge to assess and integrate across organizational, functional, or competency boundaries when developing or modifying business processes and and/or technical systems.	Recognized by peers in their community and/or management for their expert ability to assess customer, system, or functional requirements in relation to their specific discipline and provide comprehensive solutions/products that meet the resource, technical, or situational constraints.

